Marc Thornsbury

From: Gary Pruitt
Sent: Wednesday, July 21, 2010 11:44 AM
To: 'Wendy Mifflin (wendy.mifflin@co.yakima.wa.us)'
Cc: 'Vern Redifer (vern.redifer@co.yakima.wa.us)'; 'Donald Gatchalian (donald.gatchalian@co.yakima.wa.us)'
Subject: FW: LFG Collection System

Wendy

Do you want to meet to discuss this further? We can proceed without further discussion but we'll probably end up having a discussion as a result. I'd like to utilize the "talk before you act" principle here.

Gary W. Pruitt
Executive Director
Air Pollution Control Officer
509.834.2050 Ext 103
329 North First Street
Yakima, WA 98901-2303

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-----Original Message-----
From: Gary Pruitt
Sent: Wednesday, July 14, 2010 2:38 PM
To: 'Wendy Mifflin'; Vern Redifer; Donald Gatchalian
Subject: LFG Collection System

Wendy

The written notice would indeed be a notice of violation but a penalty isn't being considered. Also, the compliance order would include an interim permit with a condition to maintain a flare until such time as the final collection system is permitted and operational. I suggest we meet to discuss further. There's other information you should be aware of. I understand the Compliance Division conducted a site visit today. It was not timed to, nor will the findings, affect the discussion of this issue.

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-----Original Message-----
From: Wendy Mifflin [mailto:wendy.mifflin@co.yakima.wa.us]
Sent: Friday, July 09, 2010 1:34 PM
To: Gary Pruitt; Vern Redifer; Donald Gatchalian
Subject: RE: Tier 2 Test Results

Gary,

Thanks for your support of our proposed plan of action. We are looking forward to finalizing solutions and working with YRCAA.

In response to the ideas proposed in your email, the County is definitely willing to formalize our commitment to compliance and to addressing any LFG migration issues at Terrace Heights. We would be happy to execute and sign a plan of action (approved by YRCAA) that commits to completion dates for the activities as we have discussed.

I do have one question/concern regarding your proposal. Is the compliance timeline required to be under the umbrella of some notice of violation from your agency, or can we just proceed with making the plan of action? You propose the issuance of a "written notice to address the violation." Would this be an NOV that would be on our operating record and would we incur any penalties or fees? The County would have concerns about this particular formal action, as it might have longer-term repercussions or connotations regarding the overall operating record of the landfill.

Please let me know your thoughts about that question. In summary, we definitely support the idea of working with YRCAA on a detailed plan of action committed to by the County, but we are naturally concerned about receiving an NOV.

Thanks very much, and I look forward to your reply.

Wendy Mifflin, Solid Waste Manager
Yakima County Public Services - Solid Waste Division
7151 Roza Hill Drive
Yakima, WA 98901
Phone: (509) 574-2455
Fax: (509) 574-2458

-----Original Message-----
From: Gary Pruitt [mailto:gary@yrcaa.org]
Sent: Wednesday, July 07, 2010 12:29 PM
To: Wendy Mifflin; Vern Redifer; Donald Gatchalian
Subject: RE: Tier 2 Test Results

Wendy

Thanks for the prompt response. I understand and appreciate that a collection system designed to resolve both subsurface and vertical migration is the best plan of action and we want to support that choice.
We can certainly defer NSR until such time as the monitoring data becomes available and the collection system is designed. However, that still leaves Public Services out of compliance and this agency not addressing the non-compliance for another year. We could issue a written notice to address the violation followed by a compliance order which details your plan of action and schedule to resolve the violation. That would formalize your commitment and demonstrate that we're both doing our jobs to address and resolve the issue. This and any other communication in this regard should be kept between Public Services and us for now. Please let me know as soon as possible if you're okay with that approach. We can meet with you to discuss further if you choose. We need to complete a full compliance evaluation no later than September 30th this year and report our findings to EPA no later than October 30th.

Gary W. Pruitt
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Air Pollution Control Officer
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-----Original Message-----
From: Wendy Mifflin [mailto:wendy.mifflin@co.yakima.wa.us]
Sent: Wednesday, July 07, 2010 8:35 AM
To: Gary Pruitt; Vern Redifer; Donald Gatchalian; Gordon Kelly; Ted Silvestri; Bleeker, Gary (ECY); jcle461@ecy.wa.gov; DFRY461@ECY.WA.GOV
Subject: RE: Tier 2 Test Results

Gary,

Thanks for your review of the Tier 2 reports. As you stated, the results came in as expected. I want to address your question regarding the County's preferred timing for an NSR application for the existing soil vapor extraction equipment at Terrace Heights. As you know, an NSR application was submitted for this system in 2004, but I do not think it was ever approved.

The County would like to postpone any additional permitting action on the existing equipment and operations until LFG migration data is obtained from the planned LFG monitoring probes that will be installed in the next few months. These probes are designed to provide LFG subsurface migration monitoring data that will directly impact the design of any additional LFG collection at Terrace Heights.
Specifically, the County is aware of LFG subsurface migration on the north side of the landfill, and these probes will identify if there is LFG migration on the eastern and western boundaries.

The probes have been approved by the Yakima Health District with concurrence from the Department of Ecology and will be out for construction bidding this month. The probes are expected to be in place and providing subsurface monitoring data by late October, 2010.

With the information obtained from the probes, the County can then design any required changes to the existing soil vapor extraction system to address any LFG migration issues. The County has already commissioned R. W. Beck to provide conceptual design solutions for the LFG migration on the north side, and one or more of the proposed solutions may be utilized. These solutions involve the installation of additional wells and associated lateral and header piping. After designing the solution, the County would then submit an NSR application for your review and approval.

In summary, The County would like to continue operation of the soil vapor extraction system as it is currently operated at Terrace Heights until such time as the LFG monitoring probes can provide more data.
This data will be used to address any LFG migration issues with comprehensive design solutions that can then be permitted through the NSR process with YRCAA. Data should be available from the probes by November-December of this year, with design and NSR permit application expected before July, 2011 (approximately one year from now).

Thank you for your consideration of this response/request, and let me know your thoughts on the proposed plan of action. We look forward to working together to address these issues.

Wendy Mifflin, Solid Waste Manager
Yakima County Public Services - Solid Waste Division
7151 Roza Hill Drive
Yakima, WA 98901
Phone: (509) 574-2455
Fax: (509) 574-2458

-----Original Message-----
From: Gary Pruitt [mailto:gary@yrcaa.org]
Sent: Tuesday, July 06, 2010 8:24 AM
To: Wendy Mifflin; Vern Redifer; Donald Gatchalian; Gordon Kelly; Ted Silvestri; Bleeker, Gary (ECY); jcle461@ecy.wa.gov; DFRY461@ECY.WA.GOV
Cc: Hasan Tahat; Keith Hurley
Subject: RE: Tier 2 Test Results

Wendy

Thanks for the reports. The results are what we expected and hoped for.
Now, if you intend to continue to operate the LFG collection system, and I expect that you do, you must submit a New Source Review application and we must issue an Order of Approval so you will be in compliance with your AOP permit and WAC 173-400 and 460. How much time do you need to prepare the application? We'll be sending a letter requiring the application by a date certain and I want to give you the time you need to prepare it.

Gary W. Pruitt
Executive Director
Air Pollution Control Officer
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Yakima, WA 98901-2303

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-----Original Message-----
From: Wendy Mifflin [mailto:wendy.mifflin@co.yakima.wa.us]
Sent: Friday, July 02, 2010 8:57 AM
To: Vern Redifer; Donald Gatchalian; Gary Pruitt; Gordon Kelly; Ted Silvestri; Bleeker, Gary (ECY); John Cleary (jcle461@ecy.wa.gov); Darlene Frye (DFRY461@ECY.WA.GOV)
Subject: Tier 2 Test Results

Good Morning:

As we discussed at the meeting last month, attached you will find the Tier 2 test results for Cheyne Landfill and Terrace Heights Landfill.
Please give me a call if you have any questions.

Have a great 4th of July weekend!

Wendy Mifflin, Solid Waste Manager

Yakima County Public Services - Solid Waste Division

7151 Roza Hill Drive

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Phone: (509) 574-2455

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May 20, 2010 – Terrace Height Landfill Meeting Notes

Attendees:

Gary Pruitt, YRCAA	Bill Lover, City of Yakima
Hasan Tahat, YRCAA	Wendy Mifflin, Yakima County Solid Waste
Gordon Kelly, Yakima Health Dist.	Vern Redifer, Yakima County
Ted Silvestri, Yakima Health Dist.	Don Gatchalian, Yakima County
Gary Bleeken, Ecology	Keith Hurley, YRCAA
John Cleary, Ecology	Ali Patino, YRCAA

Meeting summary as follows:

Gary P. started off the meeting by thanking everyone for attending. He stated that the purpose of this meeting was to gain a better understanding of each agency and how they all come together in relation to Terrace Heights Landfill (THLF).

After introductions, Gary B. from Ecology explained his role in working with the Yakima Health District (YHD) on permitting. YHD is ultimately responsible for writing the permits for solid waste including the permit that entitles THLF to operate. They regulate the solid waste portion of the landfill.

Ted S. explained that his primary responsibility is for permitting. Gordon K. made a clear distinction that the YHD's primary focus is on protecting public health, not environmental health.

Wendy M. then began to explain her role at the Yakima County Solid Waste Division which operates the fourth largest landfill in the State. THLF is permitted in two areas. They have an operating permit obtained by YHD and a Title V permit issued by YRCAA.

In 2000 they started having issues with methane gas and feared there was contamination in the groundwater wells. Test results showed they had a methane issue. Ecology and the Health District made the determination that the methane was probably coming from the southern boundary. It had reached almost explosive limits and was also on the property of a residential home. A partial soil gas vapor collection system was installed voluntarily so that the gas would not migrate and a methane meter was installed in the resident's basement. The collection system was successful in maintaining the methane but Wendy M. stated that the flare never lit properly but, the consultant was still working on the project. A New Source Review (NSR) application was submitted and a draft permit was drawn up for the installation of the collection system but a final permit was never issued because the system was still being worked on by the consultant, not yet sure if the system will work. Wendy M. said they did not (and still do not) have the ability to flare the methane.

Later on THLF was faced with another gas problem in the north side of the landfill. They were put under corrective action by YHD and Ecology and have since come up with a phase approach to correct it, the first stage being Tier 2. Three nested gas wells are to be installed which will help give an overall picture of how gas is moving throughout THLF. Wendy M. said they will know the best course of action for controlling the gas once the test results are in.

Gordon K. wanted to point out that THLF was one of the better sites because of precipitation and other environmental controls (i.e. groundwater, geology).

John C. noted that garbage will produce gas anywhere and that in dryer climates it's true that you won't get the peeks you see with wetter climates but you will still get the same quantity of gas over the long-run.

Hasan T. then spoke about the federal rules which go into effect once a gas collection is put in, or a partial system as the case with THLF either mandatory or voluntary or to resolve a problem. YRCAA's main concern is the Non-methane Organic Compounds (NMOCs). Hasan continued, tier 2 is the result of the fact that THLF increased design capacity and the calculated NMOCs are 296 megagram per year as submitted by R.W. Beck which is above the threshold of 50 megagram per year in which the landfill must install LFG collection system. Or they can use Tier 2 which is actual sampling to show that NMOC's are below the 50 megagram per year. The Flare is considered one of the controls for NMOC's so they are not released into the atmosphere directly. For the draft NSR Wendy M. mentioned he stated that, the application was submitted by THLF and to be implemented in three phases if phase one will not sustain flare then phase 2, if not then phase 3 and YRCAA was working with the consultant. Six wells were installed as part of the first phase and if that wasn't enough gas

to sustain the flare then THLF would move on to the next phase. However, Wendy M. stated with regards to the first phase, that it never flared the way it was supposed to. There was not enough methane to flare because the wells location was in the soil not the solid waste. Hasan said four of the wells hit solid waste during the drilling as submitted by the consultant. Wendy said that was never the case. Hasan said please refer to your report and that is why if flare could not be sustained then you suppose to implement phase 2 and the same for phase 3. Since phase two or three were not implemented and the consultant could not be found, YRCAA was under the impression that the system was shut down by THLF since you could not get enough methane and for that reason the NSR was scrapped and during the inspection, THLF told the inspectors the system is shutdown. Wendy M. stated that this was never the case but that the flare wasn't able to operate because of a lack of methane. Hasan T. said that if the flare won't light there needs to be something to augment the methane (i.e. propane) that will be the last resort if phase 2 and 3 will not work. Nonetheless, if the control is flare it must be working all the time based on the federal rule, and if it is not working the gas moving system must be shutdown and reported within one hour. YRCAA's concern is to control NMOCs from the LFG not the methane per se.

This is considered a High Priority Violation and YRCAA instructed to report it to EPA within 270 days, which poses a dilemma for YRCAA. Ultimately, the decision was made to wait for the Tier 2 results to be accomplished and move from there. Gary P. stated that although there are risks involved with not dealing with the law, dealing with the intent of the law is the best we can do right now and we must move forward.

THLF is now deciding what measures to take from here and what's a practical and economically feasible solution. Once the limit of 50 megagrams of NMOCs is reached, federal rules are triggered and the landfill must install a collection system for the entire landfill with 98% efficiency of the NOMC compounds being controlled. Although at this point it is not economical to voluntarily put in a gas collection system. Vern R. expressed a fear of putting in another gas system just to have it not flare like the last one. He also stated that THLF is searching for what solves the problem and they want to do what is necessary, but in the most economical way they can.

The Tier 2 results will be complete by the end of June and Vern R. suggested that everyone meet again in mid-July after the report comes back. In the mean time it was suggested that a plan be put together. If the results come back and they are indeed over 50 megagrams then the course is set for them. If it is under 50 megagrams which may be the case, they can go with their plan and even expand on it. It was also suggested that they begin thinking in the direction that the results will in fact be under 50 megagrams so they can start designing a plan and get a jumpstart in the direction they are quite possibly headed. Hasan T. reiterated that at this point in time regardless of the outcome of tier 2 results, if the LFG partial system is operating as its now clear is the case, a control must be installed immediately or the system must be shutdown. As a Title 5 source above 2.5 Million Megagram design capacity THLF is automatically subject to the NSPS subpart WWW which indicate the course of action. As a matter of fact, THLF is in violation of the federal rules now if the partial (voluntary) LFG collection system is working without control. Vern R. added that they will immediately start pursuing a solution but need more time to see the extent of the problem and to figure out exactly what the problem is.

Gary P. asked that THLF keep us informed to give us assurance that we're heading in the right direction and Vern R. agreed.

That concluded the meeting.

Presented By:
Ali Patino